EAST AFRICA DAIRY DEVELOPMENT NEWS

EADD is a Project of Heifer International in Partnership with ILRI, Technoserve, ABS TCM and ICRAF

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Spotlight on EADD's Breeding Efforts

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Kipkaren AI technician Celestin Wanjala prepares to inseminate a cow in Kenya

Foreword

"From Here.....to Maternity"

This project represents an effort by the East African Dairy Development Project (EADD) consortium to combine and consolidate talents and resources to assist the smallholder dairy farmers in Kenya, Rwanda and Uganda. As we reflect on the progress of the EADD project, we are very thankful for the opportunity to work with each and every one of you consortium partners and dairy stakeholders.

Today the dairy industry has several breeding technologies including, AI using quality proven genetics, heat synchronization for fixed time breeding and sexed semen. Genetics is the smallest input in the farm production level value chain yet its impact on dairy cattle productivity is big. In Rwanda genetic progress using AI is now enhanced by the predetermined breeding schedules such as synchronization of cows.

The key driver of the East African dairy industry development plan hinges on individual country dairy policy and a strong market that exerts a pull effect as enabled by the dairy chilling plants hub model. The hub model market is attractive and has quantifiable incentives for the dairy producers that include service provision and access to credit. The artificial breeding services are anticipated to grow exponentially as more planned dairy chilling hubs become functional and are capable of delivering the dairy services farmers need.

Improving personal and milk hygiene at farm level is critical to producing quality dairy products and has impact on penetrating regional export markets for East African dairy products. Transfer of technology on udder care and milk quality testing is ongoing in the EADD target areas including introduction of effective pre and post teat dips, milk screening for mastitis, microbial diagnostics and milk component testing equipments. Call your nearest EADD appointed service provider to learn more about these technologies.

ABS TCM will maintain standards of excellence with a technical service team available to improve dairy production with AI and synchronization tools, diagnostic testing for mastitis, specialized hands on training on AI, reproductive management, genetic management and quality milk systems.

Key to dairy business profitability are: producing a pregnancy in a timely manner, maximizing milk quality, quality feeds and prudent feeding strategies, reproductive and herd management and record keeping. We urge all dairy farmers under the EADD project to use quality genetic products and services to experience a huge impact on your dairy profitability.

The Fertility Leader guarantees all EADD cows - "From Here to Maternity"

Nathaniel F. Makoni
EADD/Team Leader, ABS TCM, Ltd

Artificial Insemination in Rwanda: Exploring Opportunities, Overcoming Challenges | Paul Chatikobo, Rwanda

Rwanda is not only a country of a thousand hills; it is also a country of a thousand opportunities and challenges for dairy development. Artificial insemination using high quality bull genetics, and improving milk hygiene and quality are some of the major production and market access enhancement activities being undertaken by EADD. In this article we highlight the Rwandan experience with regards to AI and its intake. We also give an in-depth insight on why AI is good for the country and highlight the best AI strategies applicable.

Why Artificial Insemination is Good for Rwanda

The target for EADD is to improve dairy production for smallholder farmers who earn less than US$2 per day. The entry point into dairy production is a dairy cow. A large majority of farmers in the target project districts in Rwanda own indigenous breeds of cattle whose milk output is extremely low, typically less than 4 liters per cow per day. This certainly does not qualify them as dairy cows. For owners of such cows to meet their household milk needs and have some surplus for sale to improve their income, each farmer would have to own and manage a very large herd. A preliminary survey conducted by EADD in the first year of project implementation shows that many households own upward of 20 herds and even up to over 100 cows. Such a large herd would require large areas of land to satisfy the animals feed requirements. Further, and on account of the hilly nature of the country's topography, water for livestock is scarce by any measure and pasturelands as well as quality of feed available are very limited.

Unfortunately for Rwanda, about 9 million citizens share a surface area of 26,338 Km2 (inclusive of areas under water), resulting in a high population density of around 340 people per square kilometer, one of the highest in Africa. On account of the high population density, land is a very scarce commodity. With the exception of the Eastern Province (EADD's operational zone), average size of farming land per household for the rest of the country has shrunk to about 0.76 ha. However, recently, the Rwandan Government adopted a new land policy which is working towards reducing landholdings in the Eastern Province to a maximum of 25 hectares per household encouraging families with large herds to cut down and intensify their production. Maximizing production per unit of land requires adoption of new technologies such as artificial insemination to improve and match the quality of animals for milk production.

All these presented tremendous opportunities and incentives for genetic improvement of the cattle breeds so farmers can reduce their numbers of animals while improving their output of milk. A poor smallholder farmer in Rwanda has two options when it comes to genetic improvement of their cattle. The first option is to use natural breeding. Natural breeding requires the farmers to have access to both male and female livestock. Under such circumstances, normally only a few males breed most of the females leading to inbreeding. Leaving the breeding to the livestock lets nature take its own course at best results average-producing animals. Artificial insemination is the second and best option for smallholder farmers in the target project areas. Artificial insemination. is well suited to improving herd performance. It also permits the farmer to select the ideal male to mate with each female on the farm.

AI trainees in Rwanda during a pregnancy diagnosis exercise - photo by Paul Chatikobo

Another advantage of AI to the farmer is reduced costs associated with not keeping males on the farm. Some small farms may only have three or four heads of cattle, and under such circumstances, AI can be several

times cheaper than keeping a bull year-round for such small herds. Further, bulls have the added disadvantage of spreading reproductive diseases such as brucellosis which causes infertility in cattle further derailing the process of genetic change. A recent study by EADD shows that the prevalence of brucellosis in the project area ranges from 12-20%, average 9.75%.

In Rwanda, like anywhere else, successful AI programs require patience, a thorough understanding of bovine reproduction and attention to detail. It requires special training. At the start of the project, EADD trained inseminators from all the three districts in proper insemination techniques. Further, this quarter EADD ran a refresher course for artificial insemination service providers (AISPs) on semen handling.

EADD-Government of Rwanda Partnership

EADD's AI component fits well with the Rwanda government's policy of rapid breed improvement through cross-breeding with exotic quality bulls. EADD is working very closely with the Rwanda Animal Resources Development Authority (RARDA), whose mandate is to contribute towards the growth of animal production through the development of appropriate technologies. The Government of Rwanda realized the tremendous power of artificial insemination in achieving its desired goals and embraced AI as a breeding technology more than a decade ago. This has seen tremendous gains in milk production.

The Challenges

The difficulty with AI is the level of herd and semen management required. An AI program can fail in several ways. The first is incorrect heat detection. Identification of cattle in heat is critical especially in large herds as with the case in Rwanda. The farmer must closely monitor those cattle exhibiting estrus to decide when they are in standing heat and ready to breed. Ear tagging when done properly, is foolproof cow identification procedure.

A recent study by part of the EADD team shows that in the operational zone, only 6% of the farmers are able to correctly pin point true estrus (heat) in animals. This is a major challenge which weighs down on AI following natural heat detection. The challenges of heat detection in the project area gave further impetus for EADD Rwanda to adopt synchronization and time breeding to avoid the inefficiencies associated with poor heat detection.

Careless semen handling is the second way AI can fail. The bull semen must be stored, transported and thawed correctly to ensure it remains viable. The third area is improper insemination technique. Lack of handling facilities makes it difficult for the inseminators to follow proper semen handling procedures and times. Proper training and experience are necessary to be successful. The farmer often overlooks the last area. Record keeping is important for following individual cows' cycles, birthing dates and missed breeding. EADD has so far trained 336 farmers in record keeping.

Synchronization vs. Natural Heat Detection

The Rwanda Government is anxious to see a rapid change over from indigenous animal type to exotics of any level. This has resulted in the country adopting a strategy of using hormones for estrus synchronization and artificial insemination, though it is more expensive compared to natural heat detection. The aim is to get as many improved breeds as possible in the shortest possible time. Basing on experiences of the first year of project implementation where on average, not more than 300 inseminations were achieved per month using natural heat detection, EADD Rwanda had to adopt synchronization and timed AI as a breeding strategy to go along with the government's initiative, and avoid undue competition. However, synchronization was not part of the initial project strategy, and this has called for a review of the budgetary allocations for animal breeding. Implementing artificial breeding program with indigenous cattle managed under open uncontrolled natural grazing lands and with farmers possessing little or no knowledge of animal science is a very costly exercise

Why Synchronization Works

EADD has joined hands with Rwanda Animal Resources Development Authority (RARDA) and Eastern Region Animal Genetics Improvement Co-operative (ERAGIC) to guarantee the best opportunity for success. Synchronization is an excellent tool to improve performance and the overall value of a herd and the subsequent calf-crop.

De-mystifying Artificial Insemination | Ambrose Munene, Kenya

Artificial Insemination (AI) remains one of the most important and economical reproductive technologies in breeding history. There are three cornerstones for its application; **simplicity**, **affordability** and its **effectiveness** in upgrading dairy cattle breeding value.

The efficiency of heat detection is essential to the success of AI. There are many external factors that impact heat detection, including environment, nutrition, labor, the individual cow, mentoring and experience of farmers and service providers. Currently, timely and accurate heat detection reports are essential for high conception rates which are crucial for dairy farmers to appreciate AI technology. EADD enables dairy farmers to make informed decisions through education, provision of AI services and linkages to service providers. In order to accurately detect heat, farmers undergo rigorous training.

Training farmers on AI-photo by Ambrose Munene

Farmers are also trained on record keeping which is key in AI. History of a cow is important right from when it is bred and to which bull in order to avoid inbreeding and ensure that the calf registration and insemination records match. Once the cross bred calf is born, the animal is registered and tagged, forming the inception of performance recording. Currently in Kenya non return rate of the cows inseminated and recorded under the EADD program is above 80%. This indicates that efforts to educate farmers on basics and efficiencies of AI are taking root.

In most of the traditional bull dominant areas, the obstacle was resistance by farmers, who saw AI as competition to their traditionally valued bulls. Thus, concerted efforts were required to sensitize them that AI had enormous potential to improve the productivity of their heifers. In the beginning a few model farmers bought into the technology with potential benefits of increased profit margins. The number has since gradually increased as many farmers opt for AI. Using the check off system as a mode of payment of services has also enhanced the uptake of the technology since most poor farmers cannot afford to pay cash.

Since most farmers were using local bulls for natural mating, the EADD breeding program had to incorporate uterine irrigation to eliminate reproductive diseases. Breeding capacity gaps in both farmers and service providers are being addressed to improve the quality of service delivery and establish sustainable support systems. Record-keeping procedures are being established to enhance the breeding system and to provide vital information for registration and breeding management. These interventions have made extension personnel, service providers, and farmers more aware of the multifaceted aspects of reproduction, breeding and the value of cooperation for mutual benefit.

Some of the greatest threats to AI include drought and disease outbreaks particularly foot and mouth disease. The last two years of the program have been unusually adverse, with the inclement weather slowing down expected genetic gains.

Despite the challenges EADD is celebrating the beginning of numerous births of EADD sired calves and increased productivity is anticipated.

> *"Before EADD, access to AI was limited. Services were unreliable, expensive and cows bred rarely conceived due to limited information and knowledge regarding breeding. Service providers were few and had to travel long distances since demand for breeding services was low- Dairy farmer in Ol Kalou, Kenya"*

Bridging the Gap through AI Operational Satellite Centers | Silver Turyahikayo & Augustus Nyerere, Uganda

In Uganda, some of the target farmers were pastoralists who have now settled in very remote areas. Accessibility to AI services has been a major challenge to these farmers. EADD has therefore set up 'AI Satellite Centers' which bring AI services to the farmers' doorstep. AI Satellite Centers are points from where services, semen and other breeding and animal ID supplies (liquid nitrogen, gloves, sheaths, ear tags, ear tag applicators, etc) can be accessed by the farmers. Other AI service providers also draw supplies from these AI centers to serve farmers in the locality. Farmer groups act as the basis and locality to set up AI centers. Each center is managed by a qualified AI technician who is also the contact person of EADD. To serve farmers better and create trust, the AI technicians sign binding agreements with EADD and the groups. So far, seven AI Satellite Centers have been set up in the various EADD operational areas. This is helping to ease on service delivery to the targeted dairy farmers. Eight more AI satellite centers are planned to be set up in the third quarter of 2009.

Left: *Liquid nitrogen production at Masaka AI Satellite Centre* ***(right)*** *AI technicians receive liquid nitrogen plus other breeding supplies for their Center-Photos by Augustus Nyerere*

Celebrating Our First Pass on the Gifts (PoG's)!

This second year has seen tremendous improvements in the EADD project with regards to breeding. Results of intensive breeding are beginning to show. We are celebrating the beginning of births of numerous PoGs! In Kenya, the first calf was born on 6th July to Mr. and Mrs Francis Warui of Silanga village Olkalou the calf was as a result of insemination by Justus Ndwiga from a Holstein bull called Spillman. Mr Warui is also an EADD accredited farmer trainer in fodder establishment and feed conservation, stemming from his knowledge and experience over time. He has been very instrumental in recruiting farmers to deliver milk to Olkalou Dairy. In Rwanda, the first three calves were born in Nyagatare district, Nyagatare site. The calves are two females and one male. All were born in the month of July and all belong to one farmer, Mr. Alexis Kagabo, who is also a community animal health provider working with EADD. One piece of interesting information about the mothers of these calves is that they are all 75% Friesian, and are currently producing on average 16 litres each per day (morning) milking only. Finally, in Uganda, the first calf was born on the 14th June to Mr and Mrs William Kibirige in Wakiso district. The calf is as a result of insemination from a Holstein bull called Vital Sign. Mr. Kibirige is an EADD model dairy farmer whose farm also doubles up as a milk collection center before selling the milk to Jesa farm. He collects 160 liters of milk daily from neighbors. Mr. Kibirige has been over the years passing on weaned calves to assist non-dairy farmers start small dairy businesses.
All our young calves are in good condition and are mooo-ing along fine!

Mr and Mrs. Warui and their two young children celebrate the birth of their calf in Kenya- Photo by Ambrose Munene

One of the first PoGs in Uganda's Wakiso district-photo by Augustus Nyerere

The perfect gift! One of the first 3 PoGs in Rwanda-photo by Paul Chatikobo

EADD's Four P's Approach to Artificial Insemination | Silver Turyahikayo & Augustus Nyerere, Uganda

Before EADD, farmers put up signs by the roadside for AI service providers who happen to passby the area. Now services are delivered to their doorstep- Photo by Ambrose Munene, Kenya

Product (Semen): EADD's AI supply chain through the AI satellite centers guarantee farmer satisfaction through high quality products and services available in the market.

People: EADD's AI products and services are people focused. Farmer groups are encouraged to nominate their own to be trained as AI service providers and full participation by every member in the community who are EADD beneficiaries is encouraged. For most of EADD target areas, AI technology has been non-existent or minimal. This has been attributed to lack of trained AI Technicians. To address the gap, AI trainees have been selected by the communities they will be serving in a participatory manner. Each candidate is seconded by the executives of the targeted cooperative society or Dairy Interest Group (DIG). EADD subsequently shortlists the potential trainees and forward the selected candidates to the National Animal Genetic Resources Centre and Data Bank (NAGRC &DB), who in partnership conduct the trainings. Upon qualification the technicians are registered by NAGRIC&DB and a provisional certificate is provided to allow them inseminators to practice. EADD facilitates equipping the newly trained service providers with the AI equipments and associated breeding supplies. EADD also plays a key role in inducting the newly trained AI technicians in field service practice and follow ups to enable them provide quality services to the farmers.

Price: The pricing structure for the EADD's AI products and services offered to our target farmers are very competitive in the market.

Promotion: There is a deliberate effort by EADD to ensure that the AI products and services package offered to the farmers is well understood by the target community and other partners .This is done through farmer sensitizations, trainings and information materials like brochures, flyers, newspaper articles, radio programs, etc. All this is done to achieve the overall vision of EADD of improving small holder dairy productivity by improving on farm production and market access.

What Makes a Good Dairy Cow Interview with Judge Jack Lawson | Beatrice Ouma

Judging dairy cattle is a comparative evaluation of cattle in which animals are ranked based on their closeness to "ideal" dairy conformation. Desirable dairy conformation involves functional traits associated with high milk production over a long, trouble free productive life. According to Judge Jack Lawson, one of the official judges at this year's Brookside Livestock Breeders and Sales Show in Kenya, there are several qualities that judges look out for in a dairy cow during such competitions. So what are these features?

First and foremost is the cow's first impression. Judges observe cows that move with ease. They also check for strength of loins and firmness of udder attachments. A front view of the cow shows width of chest while a rear view aids in evaluating sharpness of withers, spring of rib, width of rump, width of rear udder and amount of udder cleft. Ultimately, the udder is often the deciding factor in close placings. Milking cows at the peak of lactation are given an advantage over dry cows or stale cows of equal merit.

The frame of the cow counts for 15% of the overall marks. When judging the cow's frame, the judges look out for rumps that are long and wide throughout, with pin bones slightly lower than hip bones. The tailhead should be refined and

Judge Jack Lawson describes the qualities he looks for in a good dairy cow to dignitaries who attended the show-Photo by Beatrice Ouma

blend smoothly with rump. The vulva should be nearly vertical and the cow's thurls should be wide apart and centrally placed between the hip and pin bones. The cow should have adequate height, including length in leg bones with a long bone pattern; the height at withers and hips should be relatively proportionate. Also, the cow's chest should be full with ample width between the front legs. The cow's loin should be broad, strong and nearly level, especially in young cows.

The cow's dairy character counts for 20% of the overall marks. The judges evaluate the physical evidence of milking ability. Emphasis is put on angularity, general openness while maintaining strength, flatness of bone and lack of coarseness. Consideration is normally given for stage of lactation.

The cow's body capacity counts for 10% of the overall marks. Good body capacity is often judged by strength and capaciousness of an animal. Body capacity allows an animal to make optimal conversions of feed to milk. The volumetric measurement of the cow (length x depth x width) is evaluated with age taken into consideration.

The cow's feet and legs count for 15% of the overall marks. The structure of the rear legs and feet are extremely important to the longevity and efficiency of a cow. The cow should have good mobility and be able to move smoothly. Slightly more emphasis is placed on feet than on rear legs when evaluating this category.

Finally, judging a cow's udder takes a better portion of the marks; 40%. Major consideration is given to the traits that contribute to high milk yield and a long productive life. Lactation number and age are also two factors to consider. A strongly attached, well-balanced, capacious udder with quality texture is necessary to stand up to today's production standards.

This year's champion in one of the categories is presented to the public. - Photo by Jane Kithuka

EADD Launches a New Website!

We are please to present our new website **www.eadairy.org**. The site incorporates different features including activities of EADD in each country as well as site specific information. We have news and highlights relating to the project and also feature a BDS directory, EADD publications, training videos, newsletters and many more. It is our hope that the site will keep our teams and stakeholders updated on project progress. Visit us now to find more about us!

Spotlight On: Celestine Nangami Wanjala, AI Technician in Kipkaren, Kenya

Meet 24-year old Celestine who is an AI technician attached to Tanykina Dairy Plant in Kipkaren Eldoret under the EADD program. Celestine is one of the few females in a male dominated profession. But she is happy to be in this field. In fact she says that the demand for female AI technicians has increased with more farmers putting their trusts on them. As a young girl together with her siblings, she used to look after their cows and this got her interested in the profession. Celestine underwent an intensive AI training in Kitale in 2006 and then hired by a private AI practitioner until she joined Tanykina Dairy Plant under the EADD program in September 2008. She covers the whole Kipkaren location which has several villages.

Since joining EADD she has been very busy as demand for AI has considerably increased with the sensitization by EADD. Averagely she inseminates between 5-7 cows per day. Currently, Celestine is waiting for the first delivery resulting from her insemination in August or early September this year. And she is very excited about it.

Among the highlights of her job include making regular visits to find out how the heifers are progressing after the insemination. She feels very happy when a pregnancy is diagnosed and they can look forward to a new calf, hopefully another heifer. Working with poor farmers has given her job a purpose and she finds content in their happiness and achievements.

But it has not been a rosy affair. The job comes with certain challenges that she has to deal with everyday. One of them is lack of transport. Some of her clients live very far away from the dairy plant and she has to cycle sometimes as far as 20 kms to attend to a cow. This sometimes causes delays on her part. Her only wish is to get a motorcycle which is much faster. Celestine has dreams of becoming a vet doctor and is glad that the opportunity to work under the EADD program is giving her the experience and the boost she needs to achieve her goals.

Highlights from Rwanda | George Mose

New EADD – Rwanda National Domestic Biogas Program (NDBP) Partnership

EADD is in the process of signing a Memorandum of Understanding (MOU) with NDBP to partner in field activities. NDBP, which is involved in supporting livestock farmers to install domestic biogas digester, will offer these services at subsidized prices to farmers within the EADD sites. The main objective is to develop a sustainable domestic biogas sector in Rwanda by increasing awareness of the biogas technology among farmers.

Gahengeri Dairy Farmers' Cooperative (COOPAG) Membership Increases

Membership of COOPAG has tremendously increased within the last quarter from 240 to 2053. Although the site has not yet started collecting milk for sale, farmers have made financial commitment and have raised a significant portion of equity towards the acquisition of a chilling plant. COOPAG is also the only cooperative with a woman chairperson.

Feed Stakeholder Workshop

EADD organized a two day feed stakeholder workshop within the last quarter. The aim of this workshop was to develop a strategy based on innovation system perspective for testing feeds 'best bets' in EADD sites. The workshop was attended by over 20 stakeholders and partner organizations. During the workshop, EADD conducted a participatory stakeholder analysis to determine stakeholder perceptions of opportunities constraints and in feed resource development and jointly propose potential solutions to the challenges.

Demonstration Plots and Seed Banks

So far EADD has set up 55 demonstration plots to aid ToT's in recruiting and training as many farmers as possible. The number of farmers who have now taken up quality feed and fodder practices has increased to 4455 farmers. Two seed banks have also been set up to enable farmers have access to high quality seeds.

Learning Trips

This quarter, EADD facilitated one regional and two domestic learning trips for farmers. A total of 120 farmers from all the project sites participated in the regional exchange visit to Kenya and Uganda. Local visits to model dairy farmers Rwamagana and Gicumbi were also arranged between the month of February and March.

Business Development Services (BDS)

As part of the wider BDS initiatives, EADD carried out five farmers open days to bring together farmers and service providers to explore areas of convergence. Potential service providers we taken through a Business Opportunity seminar to assist them in identifying and taking advantage of opportunities.

Business Plans

Three Business Plans for Gahengeri, Kibondo & Gasi sites were completed within the last quarter. A fourth one for Matimba is being re-written. Meanwhile, three sites in Nyagatare were linked to processors and are in the process of signing of contracts.

Other key activities included linking of two sites, Kirebe and Matimba with the Development Bank of Rwanda to fast track CP financing, site validation that identified four sites to work with EADD in the districts of Rwamangana and Gatsibo. This was followed by feasibility studies that were largely completed within the same period. Business Training Manuals and a Quality Assurance Manual were also developed.

Highlights from Kenya | Jane Kithuka

EADD Kenya's Inaugural Newsletter

EADD Kenya now produces a quarterly newsletter ***EADD Today*** in which they highlight the project's progress in Kenya. The newsletter features stories and photographs from the field. To see the inaugural and subsequent editions, visit: http://www.eadairy.org/inside.php?articleid=7

EADD Participates at the Brookside Livestock Breeders Show

EADD Kenya actively participated in a 3-day Livestock Breeders and Sales Show organized by one of the major processors, Brookside. As well as exhibiting, EADD facilitated the participation of two hundred dairy farmers. The farmers came from Siongiroi, Kipkaren, Kabiyet, Metkei, Ol Kalou, Kipkellion, Lelan, Longisa, Mweiga, Cheptalal, Cheborgei and Chepkorio drawn from twelve sites. During the 3 days in which EADD Kenya Country Office exhibited, approximately 1,664 people visited the EADD stand, registered and received training. EADD's participation in the Brookside Livestock was deemed successful.

EADD's Field Visit to Makongi Dairy Farm

This quarter also saw the participation of EADD in a major field day organized by the Kenya Dairy Board at Makongi Farm, one of the successful dairy farms in Kenya based in Uasin Gishu District. During the field day, a milk cooling facility was commissioned. The chilling plant will serve the community by giving farmers access to modern technology for improved milk handling. It will also serve as a training center for practical learning. A total 168 dairy farmers from Chepkorio, Metkei, Kabiyet, Lelan, Kipkaren and Kipkelion sites participated in the field day. EADD conducted a number of training demonstrations to the farmers on milk quality, breeding and feeds. The event which was presided over by the Minister of Livestock Hon. Mohammed Kuti was attended by several high profile dignitaries.

Business Opportunity Seminars

EADD held several Business Opportunity Seminars for Business Delivery Service (BDS) providers in Kipkaren, Kipkelion, Siongiroi, Ol Kalou and Mweiga. In order to develop a sustainable dairy value chain, EADD Kenya adopted a sub sector business development services (BDS) approach that aimed in making the dairy market function efficiently by facilitating the provision of BDS services to farmers and capacity building of service providers. EADD identified and is working with private sector providers who are entrepreneurial, business like and willing to invest in the sector. EADD is also partnering with members of the supply chain such as input providers who provide embedded services that can be promoted and replicated.

Exchange Visits Organized

Numerous exchange visits took place within the quarter where skills and knowledge were shared and transferred to farmers on areas such as calf rearing from birth to maturity, good feeds and better feeding methods, feed conservation (silage preparation and management), records and record keeping, income generating activities identification and modern practical animal husbandry tips from the exchange/host farmer.

EADD Engages Sot Dairy Cooling Plant Limited

An engagement signing ceremony was carried out between EADD Kenya and Sot Dairy Cooling Plant Limited located in Longisa. This is a new EADD site and the limited liability company has attained the minimum qualification for engagement, this being 2,043 registered farmers and 830

shareholders with Kshs.1,273,610 share capital raised.

Farmer Field Days

Farmer field days were held in Metkei, Kipkaren, Siongiroi and Ol Kalou where farmers were trained in milk production, improving milk quality, feeds and fodder and best practices in breeding. EADD partnered with stakeholders including the Government and others in the dairy and livestock industry in training the farmers.

Training Documentaries

Two training documentaries were produced by the feeds team in conjuction with the communications office. The training documentaries detail the process of making plastic tube silage and box bailing. The videos will enhance the training process to the farmers.

New Products

A number of new products have been realized within the last quarter. These include a Pulveriser which is a feed machine that enables efficient use of crop residues and fodder crops. It combines a hammer mill which grinds dry feeds to soft palatable substance and chuff cutter that reduces sizes of feed for easy consumption and silage making. Farmers have welcomed this new technology and 5 DMGs have acquired them as a group. There was also the introduction of Animal production Software which has been developed by EADD interns in Kipkaren. The software links registered farmers to their cows, production AI, animal health, breeding, feeds and farmer trainings and their earnings. It is used by the team to do quick analysis on various interventions and observe productivity per farmer and cow as the intervention are rolled out. More routine and subroutines are being added to make it a herd management tool.

Other major activity has been the labelling of milk cans to increase the process of traceability by the quality team in various sites.

Highlights from Uganda | Beatrice Nabwire

EADD Puts On a Good Show at the Annual Uganda National Agriculture Show

EADD participated in the annual Uganda National Agriculture Show which was held in Jinja. EADD shared an exhibition tent with HPI-Uganda and both emerged as winners in the livestock sector.

Kiboga West Livestock Co-operative Society Open for Business

After the installation of a 5000liter capacity cooling tank, Kiboga opened its doors to members to start selling milk. Currently, it is collecting about 3600 litres daily.

Mobilization Continues

EADD continues to actively mobilize and organize farmers into DFBAs. Farmers in Bubusi, Jinja, Mukono-Buikwe are being organized to operate and run the traditional hub models. Over 90 farmer mobilizers have been trained to assist Uganda's DFBAs gain more membership. Over 5000 farmers have also been engaged and trained in group dynamics and governance

Farmer Field Days and Exchange Visits

Farmer field days have been organized in Kiboga and BUBUSI and over 400 farmers involved in local learning visits.

Business Delivery Services

Five linkages have been established between DFBAs and private vet service providers in Bubusi, Masindi, Luweero, Mukono -Buikwe . A farmer business opportunity seminar (BOS) was also organized in BUBUSI and over 5000 farmers are currently accessing BDS services

Feeds

Over 100 farmer-trainers were trained in improved feed practices, including fodder-selling farmers. Farmers were sensitized on high quality feeds and about 3000 farmers are currently using high quality feeds. Over 90 on-farm demonstrations of high quality feed production and use have been established

AI

Twenty one Community-based animal healthcare providers (CAHPs) were trained and equipped as accredited artificial insemination (AI) technicians. Over 3000 farmers trained in basic animal management, heat detection, recordkeeping and traceability. Up-to-date about 4000 original AIs have been performed.

Chilling Plant Management

A workshop for traditional milk traders and CP managers on milk business and quality management was successfully accomplished within the last quarter.

Updates from HR | Jane Oduor

This quarter issue is special in many ways; HR activities was focused towards the combined skills and expertise that give the organization its distinctive character, we had the opportunity to run two major 'Just –in-time' trainings; the leadership development training and project management, targeting specific staff.

'What a waste if I develop my staff and then they leave' to which the only logical response is' what if you don't develop them and they stay?'

Most observers of the field have indicated that for performance practitioners to become true business partners, training and performance-improvement initiatives must be integrated into the overall strategic and operational framework of the organization. However some training may be unspecific and have general, long-term and be none the less appropriate notwithstanding, EADD gapes at the high priority needs over short term solution based on the project structure and use of training to help achieve aims that stem from our milestones hence the rationale for conducting the two trainings.

Effective Project Management Training

The effective project management training was by all measures a success. The training achieved its stated goal of equipping the participants with everything they needed to know about effective project management and much more. In the final analysis, the participants learnt the A to Z of Project Management within one week. Participants were not only able to identify the main challenges in managing EADD projects but also provided possible remedial action.

Leadership Training

Research has shown that in order to manage effectively one must move one from a "one size fits all" management approach to providing direction, motivation and development in a way that aligns with each individual as well as with organizational milestone. The two-day training session conducted by Tamidra Marable from the HPI Headquarters, was held for each country program as well as the regional team. Participants learned how to identify their leadership style and preferences of the people they manage and how their style affects the motivation of others, learned to identify and adapt to increase others motivation, natural style of developing others, ability to influence and communicate effectively among others.

Evaluation of Training Outcomes

The organization funds training at the expense of other organizational needs, and the results influenced by training can be elusive without a focused evaluation effort to address the outcomes. The measurement and evaluation of training outcomes improve results in the project. Measurement will allow line managers to see the results as well as the potential from training efforts and this will lend itself to stronger partnerships. Accountability and return on investment are key aspects in the benefits of training outcomes. Let us try and evaluate all our trainings, the software for conducting the process are all in the on line learning portal. Let us make use of it!

The Proposed Performance Management System

In November of 2008 at the first Annual Review Meeting, held in Naivasha, Kenya, the EADD steering committee requested that work begin on structuring a harmonized performance management system. Based on the request, information was solicited from all partners in an effort to construct a harmonized system and tool.

During the two day training session on leadership, participants were also introduced to the proposed EADD Performance Management System.

Monitoring & Evaluation Updates | Gaitano Simiyu

M&E Framework Rolled Out

The process of the M&E system roll-out started late in to the first year of East Africa Dairy Development (EADD) project and ran through the first half of the second year, lead by an M&E team. Key activities leading to the roll-out included reviewing the project documents, developing one milestone document combining Appendix A (target outcomes) and Appendix B (outputs and timelines), developing indicators and timelines (start and end dates) for each milestone, development of data collection templates, synchronization of planning and reporting procedures, development of a web-based database, regional and country M&E system roll-out trainings and development of a M&E guide. The second phase of the web-based database is being completed and an M&E guide developed to comprehensively implement the system. The process was wholly participatory involving the project technical teams and management teams from the regional level to the country levels.

Get to Know Your Dairy Team

Augustus Muli Nyerere, Dairy Project Coordinator

Augustus is working with EADD as the Dairy Project Co-ordinator in Uganda. He is also the ABS TCM Uganda Country Representative. His wider role in EADD is to coordinate the program's team that seek to improve milk production through dairy artificial breeding, milk quality and feeding and nutrition services. Augustus is an animal scientist who holds a MSc. in Animal Production (Ruminant Nutrition) from University of Nairobi. He has over six years experience working in the Kenyan livestock sector as a Livestock Production Officer. He also worked a Livestock Technical Advisor with the livestock production and breeding program implemented by the British's Voluntary Services Overseas in Masindi Uganda, as well as an Associate Graduate Researcher with ILRI. He received training in Total Dairy Management Systems, Artificial insemination and animal breeding at ABS TCM Nairobi. He is a proud father of five children and loves out-door activities specifically jogging/walking and socializing, as well as venturing into new pursuits.

William Odhiambo , Senior Business Advisor

William works with EADD as a Senior Business Manager for Kenya. He is currently pursuing his MBA from University of Wales (UK) and holds an Honours degree in Food Technology and Marketing, Post –graduate diploma in Project Planning and Management, and certificate in Business Development Services (BDS) .He is a seasoned business / market development specialist. He has a wealth of experience in enterprise / business development, market development, value chain analysis , BDS market assessment and making markets work for the poor initiatives spanning over 9 years. William has previously worked as a Business advisor, Senior Business Advisor, BDS consultant, Value analyst and as an Enterprise development specialist for TechnoServe Kenya, Aga Khan Foundation and private organizations as business development consultant.

Betty Rwamuhizi, Senior Dairy Specialist

Betty is working as a Senior Dairy Specialist in Rwanda. Her job functions include managing the business operations of the dairy enterprises, assessing the needs of the CPS, conducts trainings for farmer cooperative members in milk handling, hygiene and milk quality. She holds a Bachelor of Science Degree in Food Science and Technology. Previously, she worked as a district community Social Worker under the Ministry of Women and Family Promotion (MIGEPROFE) in Rwanda. She is devoted Christian and among her hobbies include listening to gospel music and attending prayer sessions. She is single and currently takes care of two children who are blood relations.

Introducing New Staff

Several staff have joined us within the last quarter. In the regional office, Gaitano Simiyu joined as the Regional Director for M&E. In Rwanda, Celestine Nyamutamba has joined EADD as the new Investment Advisor, Clive Turyakira as an Accountant and George Mose as Animal Husbandry/Monitoring & Evaluation Officer. In the Kenyan office, Cheuiyot Langat and David Kimeto joined as Livestock Specialist and Driver respectively. Welcome aboard!

Dairy Tip of the Quarter

Less Mud in Heifer Pens Saves Feed Cost

The amount of mud that heifers must wade through to reach the feed bunk can sharply increase their energy intake. "It literally sucks the energy out of them," says Greg Bethard, of G&R Dairy Consulting in Wytheville, Va., and assistant director of dairy technology at Dairy Records Management Systems in Raleigh, N.C. It is important to keep the area between the feed bunk and the resting area "relatively free of mud. Six inches to a foot of mud is not acceptable. Excess mud means heifers need to consume more energy to meet maintenance requirements, and that can rack up the feed bill fast.

Dairy Diary

Country	Activities	Dates
	5th African Dairy Conference & Exhibition, South Africa	5 -7 August
	Visit by BMGF Dairy Value Chain Innovations project team from USA	16-20 August
Rwanda	CAHWs Training	August
	cooperative executive training (Rwamagana District)	10-12 August
	Cooperative Executive training (Gatsibo District)	13-15 August
	Cooperative Executive training (Nyagatare District)	24-26 August
	Establishing nurseries for fodder trees	August
	Conduct farmer open days (FOD) for the 4 new sites	August
	Farmers Training	September
Uganda	Installation of CPs in Nabitanga, Luweero and Kinyogoga	To be Scheduled
	Farmer field days, farmer fairs, road side shows, radio talk shows	To be Scheduled
	Launch of Farmer training and Hub model videos (Luganda Version)	To be Scheduled
	Youth and women camps	To be Scheduled
Kenya	Lelan Highlands Dairies Ltd Launch	27 August
	Kabiyet Dairies Ltd Launch	28 August

Humor Corner

A club catering for the wealthy city woman visited a dairy farm as its monthly outing programme. Most of the ladies had lived in the city all their lives, and had never seen a farm before. On the way, they looked out of the windows as the city squalor turned into lovely, unpolluted countryside. After they arrived, they were greeted by the farmer who invited them to look him up should they have any questions. Maggie, after looking about and being amazed by what she saw, stepped into a building and viewed something she thought was quite remarkable. She saw the farmer walk by and hailed him. He sauntered in. "Sir," she inquired. "Why doesn't this cow have any horns?" The farmer cocked his head for a moment, then began in a patient tone: "Well, ma'am, cattle can do a powerful lot of damage with horns. Sometimes we keep 'em trimmed down with a hacksaw. Other times we can fix up the young ones by putting a couple drops of acid where their horns would grow in, and that stops 'em cold. Still, there are some breeds of cattle that never grow horns. But the reason this cow don't have no horns, ma'am, is because .... it's a horse!

Picture Gallery

Participants at the Leadership training in Uganda-photo by Tamidra Marable

Rwanda farmers during an exchange visit to Nyala Dairy in Kenya-photo by Grace Gasana

Ayrshire's at Makongi farm being showcased during a grand parade in Kenya-photo by Jane Kithuka

Mobilization meeting in Rwamagana district Rwanda-photo by Joseph Karake

Scores of dairy farmers attended Kieni Dairy ground breaking ceremony in Kenya- photo by Beatrice Ouma

A cooling tank being installed in Kiboga West Uganda-photo by Brian Dugdill

Farmers visit the EADD stand during the Uganda national agricultural show in Jinja Uganda-photo by Jane Kugonza

Claude Ruganirwa during a training session for farmers on one of the demo plots in Rwanda-photo by Benjamin Nzigamasabo

Julie Kariuki, Senior Business Manager, EADD Kenya trains BDS providers-Photo by Jane Kithuka

Join Our Herd!

To automatically receive an electronic copy of the DairyNews please send an e-mail to Beatrice Ouma at beatrice.ouma@eadairy.org to include you in our mailing list or sign up directly through our website www.eadairy.org You will get updates on project implementation, latest updates on the dairy industry as well as expert advice on dairy management.